

What is claimed is:

1. A bloodless catheter comprising
a first hub having a bore at a proximal end;
a cannula fixed in and extending from an opposite distal end of said hub
for invasive positioning in a blood vessel; and
a septum seal mounted in said bore of said hub in circumferentially sealed
relation to prevent a flow of fluid from said cannula to said proximal end of said hub,
said seal having a weakened central section.
2. A bloodless catheter as set forth in claim 1 wherein said seal is made of
elastomeric material.
3. A bloodless catheter as set forth in claim 1 wherein said weakened section
of said seal has a slit therein to define a valve.
4. A bloodless catheter as set forth in claim 1 wherein said seal is slidably
mounted in said bore.
5. A bloodless catheter as set forth in claim 1 wherein said seal is mounted
at one end of said bore with a face thereof exposed for swabbing.
6. A bloodless catheter as set forth in claim 1 further comprising first means
in said hub for forming a flow path through said weakened section of said seal in
response to a relative movement between said means and said seal.
7. A bloodless catheter as set forth in claim 6 wherein said first means is a
tube mounted in said weakened section of said seal and extending into said cannula.
8. A bloodless catheter as set forth in claim 7 wherein said seal has a tubular
portion receiving said tube in stretch-fit manner and a centrally disposed slit.

9. A bloodless catheter as set forth in claim 7 which further comprises second means for moving said seal over said tube to cause said tube to pass through said weakened section of said seal.

10. A bloodless catheter as set forth in claim 6 wherein said first means is a piercing ring mounted on said seal for pushing through said weakened section of said seal in a direction towards said cannula to define a flow path through said seal.

11. A bloodless catheter as set forth in claim 10 which further comprises second means for moving said piercing ring through said weakened section of said seal.

12. A bloodless catheter as set forth in claim 11 wherein said second means is a male luer adaptor slidably mounted in said bore of said hub in sealed relation and engaging said ring to push said ring through said weakened section of said seal.

13. A bloodless catheter as set forth in claim 6 which further comprises second means for moving said first means relative to said seal.

14. A bloodless catheter as set forth in claim 13 wherein said second means is a male luer adaptor slidably mounted in said bore of said hub in sealed relation and engaging said septum seal in sealed relation.

15. A bloodless catheter as set forth in claim 1 which further comprises
a needle hub telescopically mounted in said bore of said first hub; and an introducer needle fixed in said needle hub and extending through said seal in sealed relation and through said cannula.

16. A bloodless catheter as set forth in claim 1 which further comprises a guide wire extending through said weakened section of said seal and said cannula.

17. A bloodless catheter as set forth in claim 1 which further comprises a stylet extending through said weakened section of said seal and said cannula.

said piercing ring through said slit in said seal to communicate said adaptor with said cannula.

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A. Environmental Indicators	
1. Air Quality	0.85
2. Water Quality	0.78
3. Noise Levels	0.92
4. Soil Contamination	0.65
5. Waste Management	0.70
6. Biodiversity	0.88
7. Climate Change	0.75
8. Land Use	0.80
9. Urban Sprawl	0.60
10. Green Spaces	0.72
11. Air Pollution	0.82
12. Water Pollution	0.70
13. Noise Pollution	0.88
14. Soil Degradation	0.65
15. Waste Generation	0.75
16. Biodiversity Loss	0.80
17. Climate Change Impact	0.70
18. Land Use Change	0.85
19. Urban Sprawl	0.60
20. Green Spaces	0.72
21. Air Pollution	0.82
22. Water Pollution	0.70
23. Noise Pollution	0.88
24. Soil Degradation	0.65
25. Waste Generation	0.75
26. Biodiversity Loss	0.80
27. Climate Change Impact	0.70
28. Land Use Change	0.85
29. Urban Sprawl	0.60
30. Green Spaces	0.72
31. Air Pollution	0.82
32. Water Pollution	0.70
33. Noise Pollution	0.88
34. Soil Degradation	0.65
35. Waste Generation	0.75
36. Biodiversity Loss	0.80
37. Climate Change Impact	0.70
38. Land Use Change	0.85
39. Urban Sprawl	0.60
40. Green Spaces	0.72
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42. Water Pollution	0.70
43. Noise Pollution	0.88
44. Soil Degradation	0.65
45. Waste Generation	0.75
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47. Climate Change Impact	0.70
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